

Service Manual

74 EQ315/01B/02B/05B

Stereo graphic equalizer



MARA-00608

This service manual explains them by extracting the different specifications from those of the model EQ351, based on the model EQ351. For both electrical and mechanical information on the after-sales service which is not stated, all information is described in the model EQ351 service manual (Codenummer 4822 725 50847).

The dispatch of the parts for after-sales service has to be referred to this service manual, with the first priority.

For this reason, please use this service manual with referring to the model EQ351 service manual, without fail.

Quell 5497

Different Parts between model EQ351 and EQ315

PAGE	EQ351		EQ315	
	REF. DESIG.	PART NO.	PART NO.	DESCRIPTION
7	001X	4822 426 51275	4822 426 20203	Front Panel
	005X	4822 462 41229	4822 462 41799	Leg
	012X		4822 454 11825	Badge
	001U	4822 736 13844	4822 736 21116	User Manual
	J2	4822 265 20222	4822 267 30986	AC Inlet

m a r a n t z®

model EQ315

First issue;1991
4822 725 50943

MZ 2886

065.501.4

Quedate en la oficina de **Auditoría y Control de la Caja de Pensiones para el Fomento del Trabajo Autónomo**

SERVICE MANUAL

EQ351

4822 725 50847

marantz®

model EQ351

Stereo Graphic Equalizer

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.

Only original MARANTZ parts can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

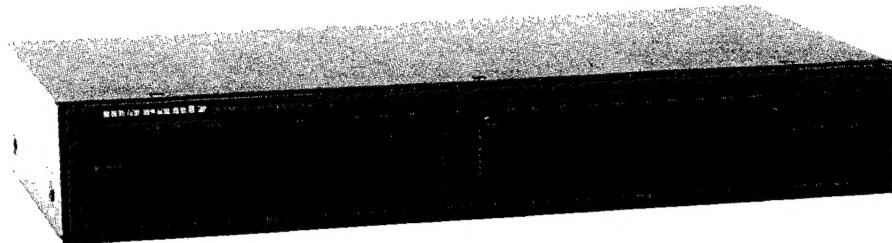
Parts may be ordered at the following addresses:

AUSTRIA	FINLAND	GREAT BRITAIN	SAUDI ARABIA	SWITZERLAND
HORNYPHON	MARANTZ	MARANTZ AUDIO U.K. Ltd Unit 15/16 Saxon Way Industrial Estate Moor Lane Harmondsworth UB7 OLW Great Britain Telex: 935196	AL ALAMIAH ELECTRONICS P.O.Box 5954 University Street Riyadh 11432 Saudi Arabia Telex: 201530	DYNAVOX ELECTRONICS Route de Villars 105 1701 Fribourg Switzerland Telex: 942377
Vertriebsgesellschaft GmbH Wienerbergstrasse 1 A 1101 Wien Austria Telex: 132.332	DIVISION OF OY PHILIPS Ab Kaivokatu 8 00100 Helsinki Finland Tele: 124811			
AUSTRALIA	FRANCE	GREECE	SOUTH AFRICA	TURKEY
MARANTZ AUSTRALIA PTY., Ltd. 19 Chard Road Brookvale, NSW 2100 Australia Telex: 24121	MARANTZ FRANCE 4 Rue Bernard Palissy 92600 Asnières France Tele: 611651	SHERTON ELECTRONICS S.A. P.O.Box 21025 Hippocrates Street 188 Athens 11471 Greece Telex: 216.795	MARANTZ DIVISION OF PHILIPS S.A. Rainer House Ove Street, 10 Doornfontein Johannesburg Telex: 483.456	DOGRUOL Ltd. I.M.C. 6 Blok N°6310 Unkapani Istanbul Turkey Telex: 22085
BELGIUM	GERMANY	JAPAN	SPAIN	MALTA
SVD DIVISION MARANTZ Industrialaan 1 1720 Groot-Bijgaarden Belgium Telex: 24466	MARANTZ GERMANY GmbH Max-Planck-Strasse 22 6072 Dreieich 1 Germany Telex: 529821	MARANTZ JAPAN, Inc. 35-1, 7-chome, Sagamiono Sagamihara-shi, Kanagawa Japan	PHONO S.A. Ignacio Iglesias 10 Badalona (Barcelona) Spain Telex: 59355	CACHIA & GALEA Republic Street, 68D Valetta Telex: 1682
CHILE	THE NETHERLANDS	KUWAIT	SWEDEN	U.S.A.
MARANTZ DIVISION OF PHILIPS S.A. AV. Santa Maria, 0760 Casilla 2687 Santiago Telex: 240.239	Elpro b.v. De Limiet 3 4131 NR Vianen The Netherlands Tele: 47679	AL ALAMIAH ELECTRONICS Ussama Building Fahd al Saleem Street P.O.Box 23781 Safat-Kuwait Telex: 22694	MARANTZ DIVISION OF PHILIPS Försäljning AB Tegeluddsvägen 1 S-115 84 Stockholm Sweden Telex: 14060	MARANTZ COMPANY, Inc. National Service Department P.O.Box 577 Chatsworth, CA 91311 U.S.A.
DENMARK	NORWAY	ITALY		
MARANTZ DIVISION OF PHILIPS SERVICE A/S Prags Boulevard 80 Postbox 1919 DK-2300 København S Denmark Telex: 31201	MARANTZ DIVISION OF PHILIPS A/S Sandstuveien 40 Oslo 6 Norway Telex: 72640	MARANTZ ITALIANA S.P.A. Via Chiese, 74 20126 Milano Italy		

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

MODEL EQ351 STEREO GRAPHIC EQUALIZER



How to use this service manual

- The "Common parts" which Marantz Japan, Inc. has established are eliminated from this service manual.
- These "Common parts" are applied to all models in the service manuals arranged and issued by MJI.
- To indicate clearly the common parts in the schematic diagram, a line is drawn above or under the Ref. Desig. No. of applicable parts.
- "Common parts" can be supplied from the Marantz service center as ever.
In case of ordering, please establish the parts number of 12 N/C'S following the procedure mentioned in this service manual "How to establish the parts number for common parts".

1) Please correctly write the parts number of 12 N/C'S following the rule.

TABLE OF CONTENTS

Section	Page
1. P.W. BOARD	2
2. ADJUSTMENT METHOD	3
3. PARTS LOCATION (Pattern Side)	4
4. EXPLODED VIEW AND PARTS LIST	6
5. ELECTRICAL PARTS LIST	7
SCHEMATIC DIAGRAM	

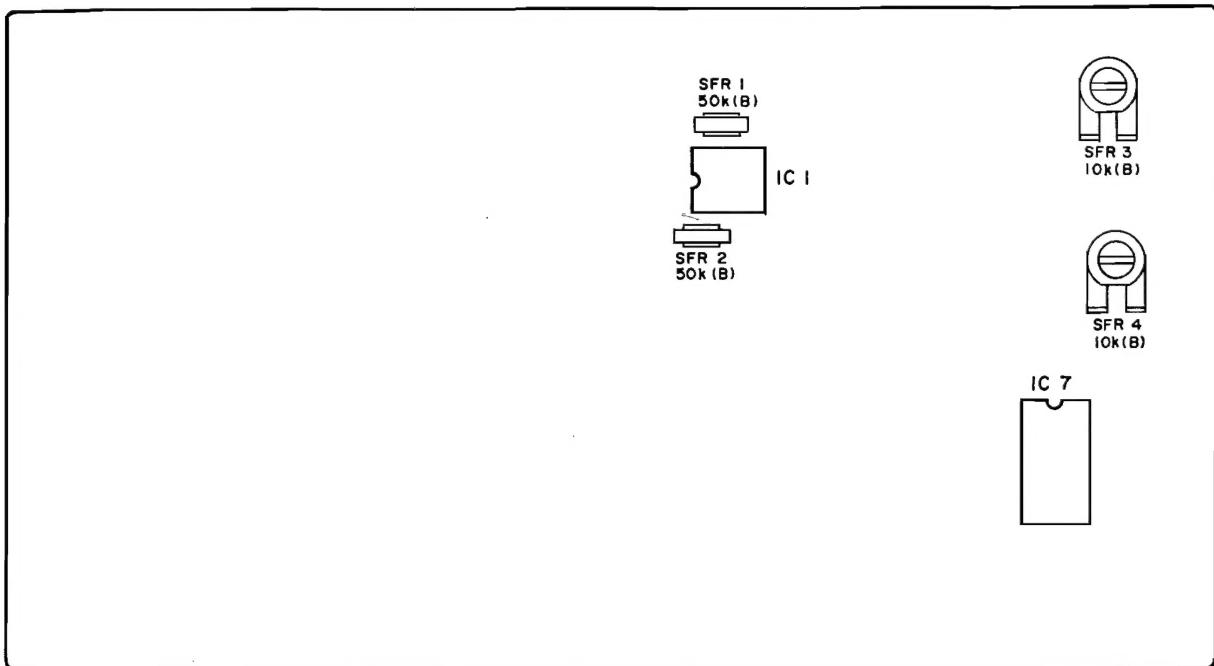
1. P. W. BOARDS

As can be seen from the circuit diagram, the chassis of your Cassette Deck consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

- 1. Main mounted on P.W. Board
- 2. EQ Control mounted on P.W. Board
- 3. EQ Level mounted on P.W. Board
- 4. Peak Indicator mounted on P.W. Board
- 5. Mode Switch mounted on P.W. Board
- 6. Mode Indicator mounted on P.W. Board

2. ADJUSTMENT METHOD

Main P.W. Board



1. SFR1/SFR2 ADJUSTMENT METHOD.

Test condition:

- A. EQ VR at center position
 - B. EQ level at center position
 - C. Input: 1 kHz, 1V from line in
 - D. Output: 1 kHz, 1V from line out
 - E. Tape monitor SW off, EQ REC SW off, EQ REC SW off
- Adjust SFR1/SFR2 to make the output level at 1V during EQ EW in and out.

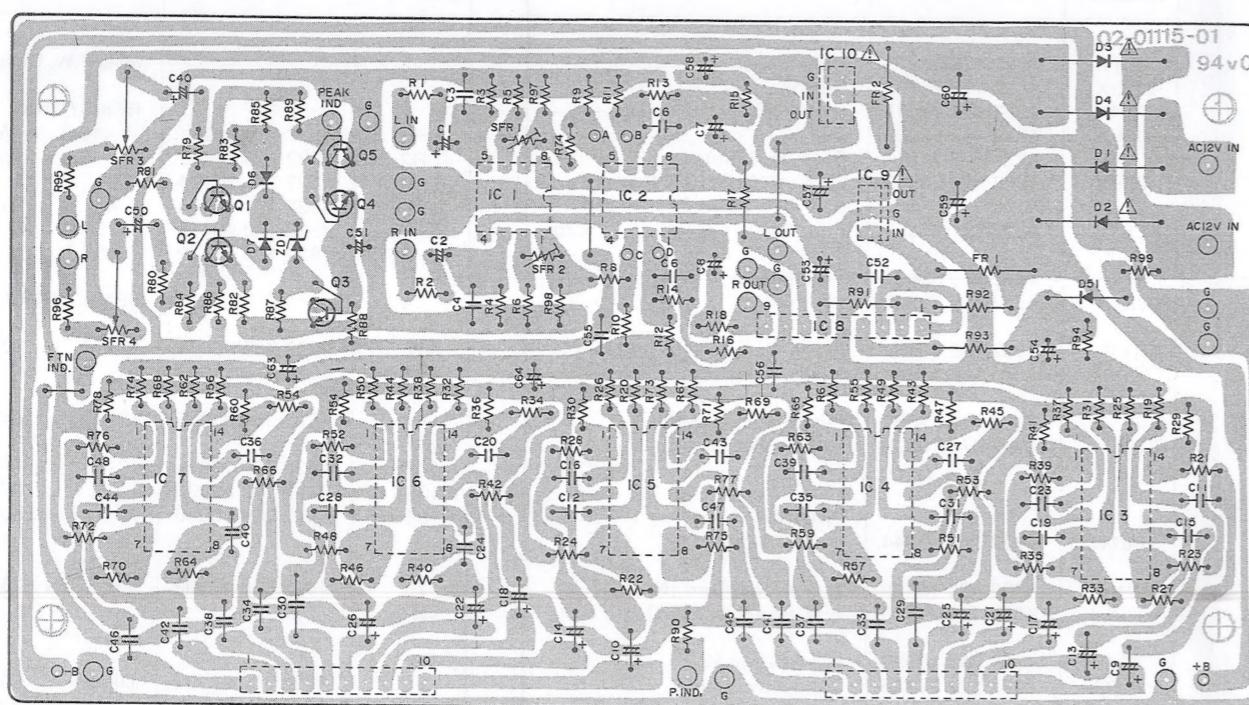
2. SFR3/SFR4 ADJUSTMENT METHOD.

Test condition:

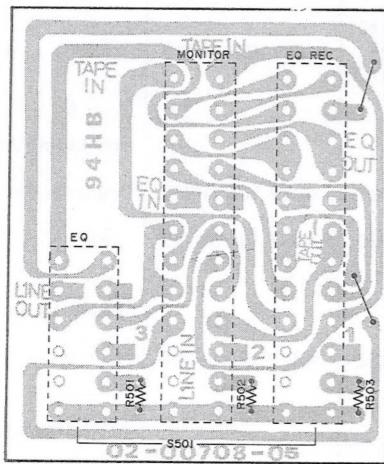
- A. EQ tone VR at center position
 - B. Level VR at max position
 - C. Input: 1 kHz from line in
 - D. Output: 1 kHz from line out
 - E. EQ SW: In position, monitor SW off, EQ REC SW off.
- Apply 1 kHz signal to L channel, gradually increase the input level until the output wave from on scope become a little bit clip than adjust SFR3 to make the peak LED on front panel "ON", at this time the output level is about 4.5V, repeat the same procedure for R channel and adjust SFR4 to make peak LED "ON" at same output level.

3. PARTS LOCATION (Pattern Side)

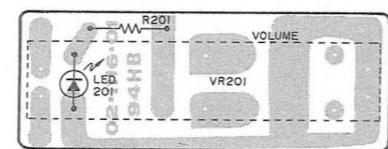
Main P.W. Board



Mode Switch P.W. Board



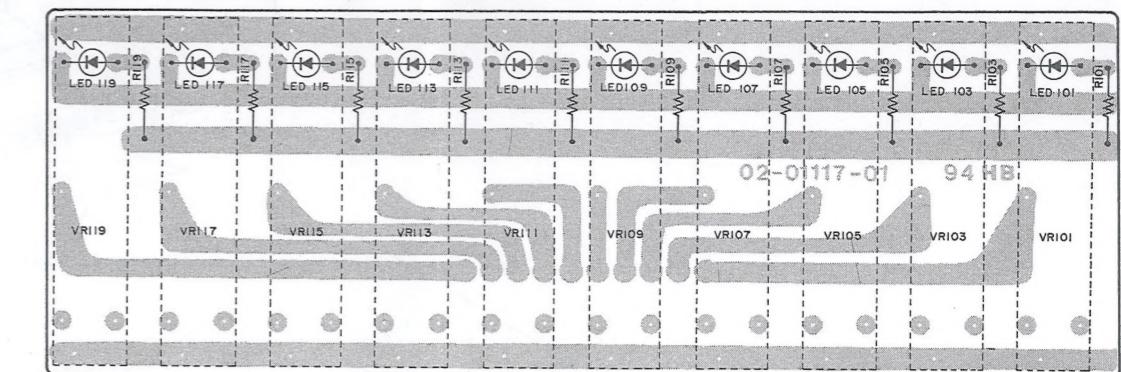
EQ Level P.W. Board



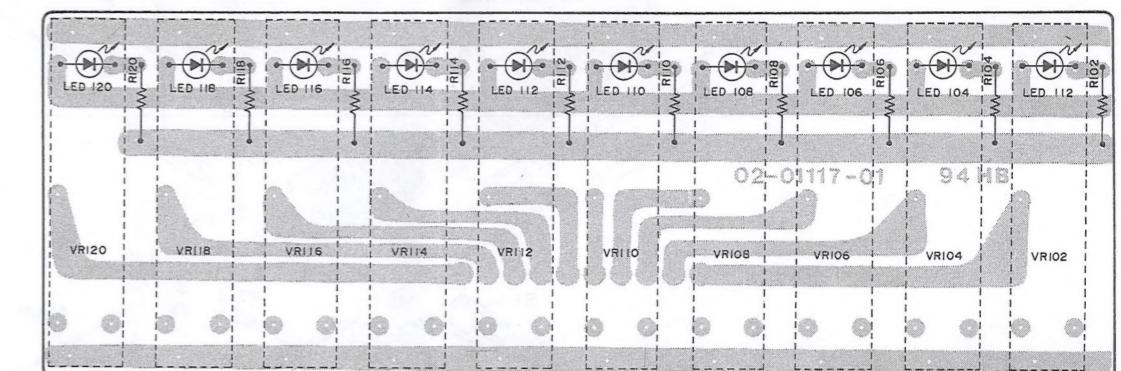
Mode Indicator P.W. Board



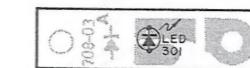
EQ Control P.W. Board (L)



EQ Control P.W. Board (R)



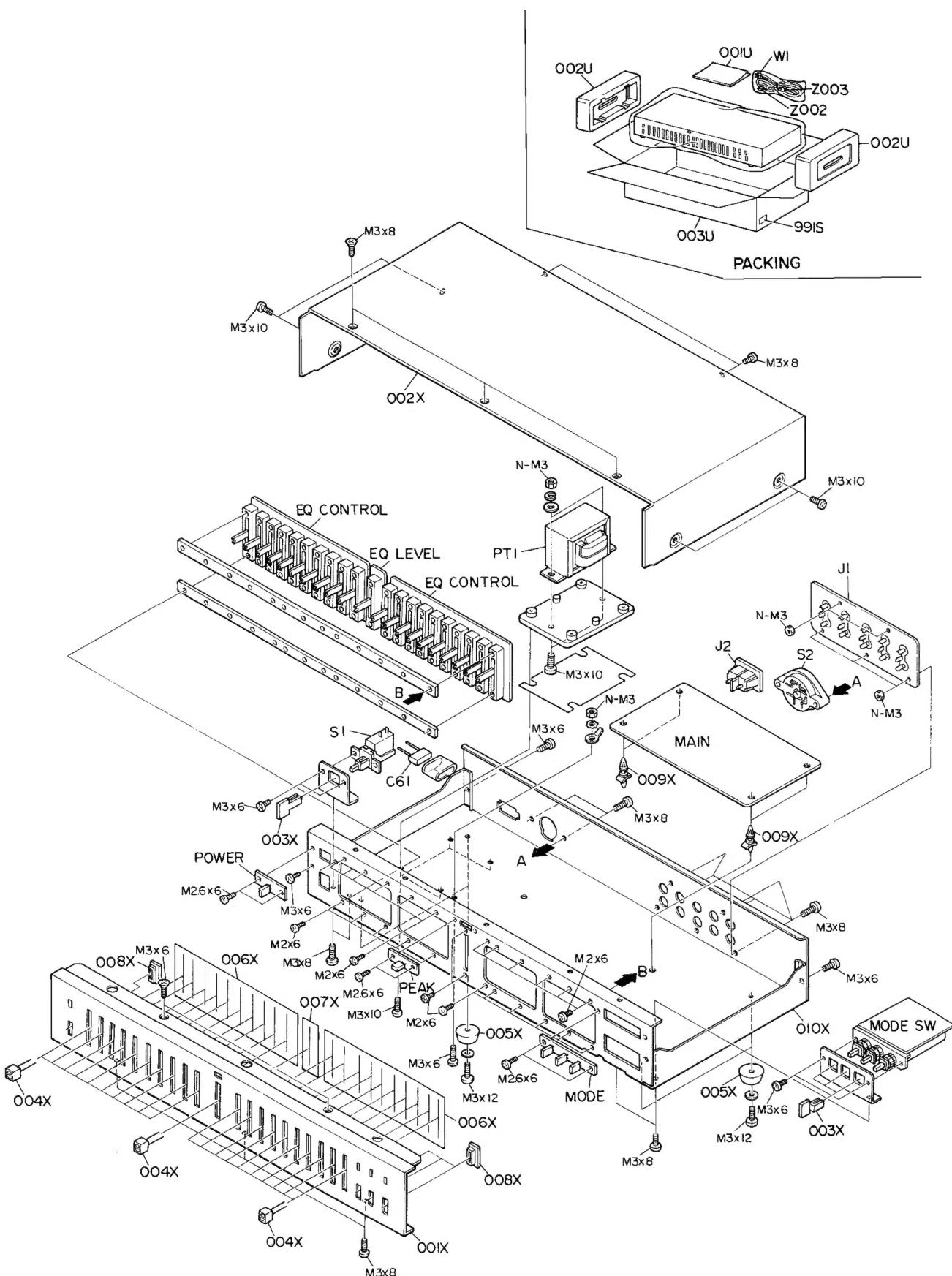
Power Indicator P.W. Board



Peak Indicator P.W. Board



4. EXPLODED VIEW AND PARTS LIST

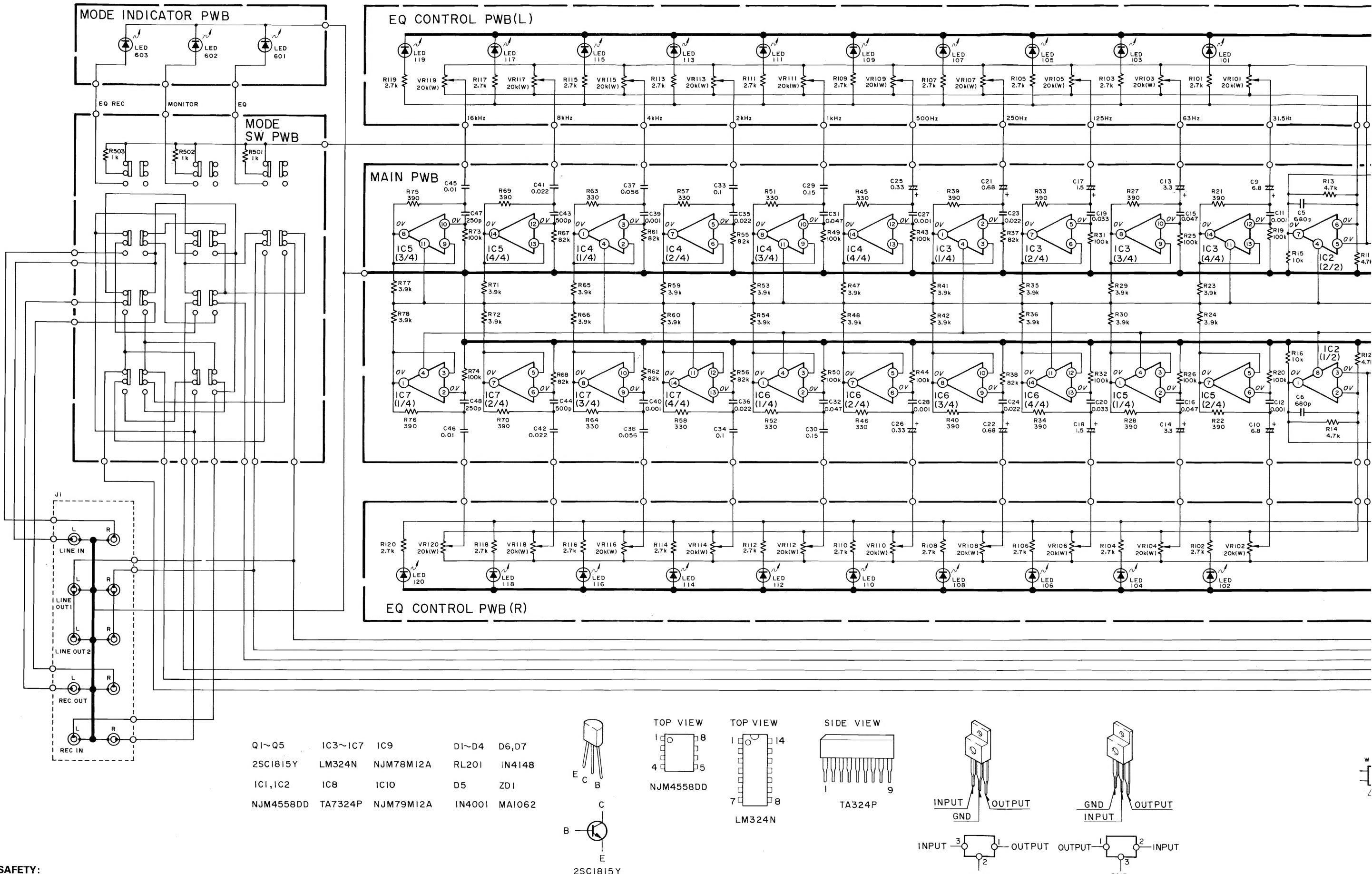


REF. DESIG.	PART NO.	DESCRIPTION	
001X	4822 426 51275	Front Panel	
003X	4822 410 26383	Button	
004X	4822 413 41432	Knob, EQ	
005X	4822 462 41229	Leg	
008X	4822 532 21313	Bush, Push Button	
009X	4822 404 20966	Support, Main P.W. Board	
▲ C61	4822 121 51257	Film Cap. 0.01μF	125V
J1	4822 290 80801	Terminal, 8P	
▲ J2	4822 265 20222	AC Inlet	
▲ P T1	4822 146 30682	Power Transformer [E]	
	4822 146 30683	Power Transformer [N]	
▲ S1	4822 276 12392	Push Switch, Power	
▲ S2	4822 272 10236	Voltage Selector	
PACKING			
001U	4822 736 13844	User's Manual	
▲ W1	4822 321 10429	A.C. Power Cord [N]	
	4822 321 21123	A.C. Power Cord [E]	
Z002	4822 265 10092	AC Adaptor [E]	
Z003	4822 321 22745	Connective Cord	

5. ELECTRICAL PARTS LIST

REF. DESIG.	PART NO.	DESCRIPTION	
		Main P.W. Board	
FR1	4822 116 80561	RESISTORS	10Ω ½W, Fuse
FR2	4822 116 80561		10Ω ½W, Fuse
SFR1	4822 101 10904		50KΩ Trimming
SFR2	4822 101 10904		50KΩ Trimming
SFR3	4822 100 10472		10KΩ Trimming
SFR4	4822 100 10472		10KΩ Trimming
		SEMICONDUCTORS	
IC1	4822 209 83631	IC	NJM4558DD
IC2	4822 209 83631	IC	NJM4558DD
IC3			
{	4822 209 83975	IC	LM324N
IC7			
IC8	4822 209 72811	IC	TA7324P
△ IC9	4822 209 82828	IC	NJM78M12A
△ IC10	4822 209 70086	IC	NJM79M12A
Q1			
{	4822 130 43792	Transistor	2SC1815Y
Q5			
△ D1			
{	4822 130 80724	Diode	RL201
△ D4			
D5	4822 130 31438	Diode	IN4001
D6	4822 130 30621	Diode	IN4148
D7	4822 130 30621	Diode	IN4148
ZD1	4822 130 32653	Zener	MA1062
		EQ Control P.W. Board (L)(R)	
VR101			
{	4822 105 10978	Variable Resistor	20KΩ(W)
VR120			
LED101			
{	4822 130 80718	LED	LTL-23218AB
LED120			
		EQ Level P.W. Board	
VR201	4822 105 10977	Variable Resistor	100KΩ(A)×2
LED201	4822 130 80719	LED	LTL-23238AB
		Power Indicator P.W. Board	
LED301	4822 130 80358	LED	LTL-3231A
		Peak Indicator P.W. Board	
LED401	4822 130 80359	LED	LTL-3211A
		Mode Switch P.W. Board	
S501	4822 276 12391	Push Switch, Mode	
		Mode Indicator P.W. Board	
LED601	4822 130 80358	LED	LTL-3231A
LED602	4822 130 80358	LED	LTL-3231A
LED603	4822 130 80358	LED	LTL-3231A

SCHEMATIC DIAGRAM

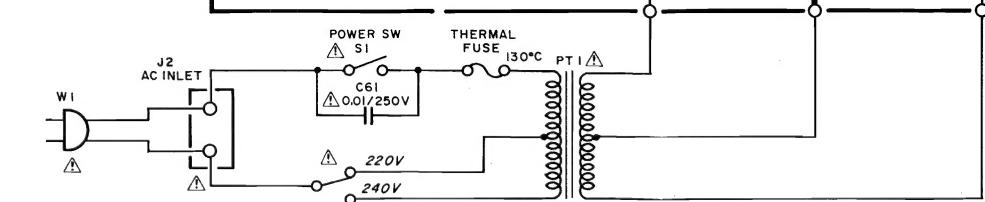
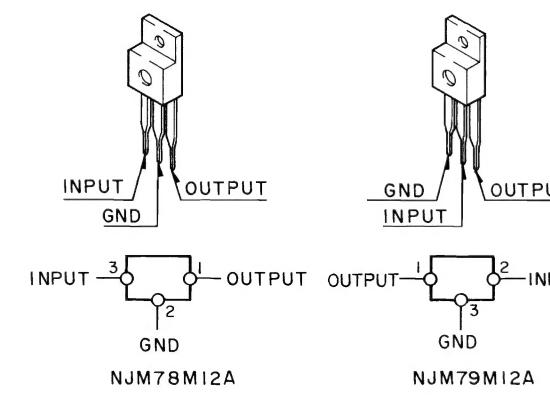
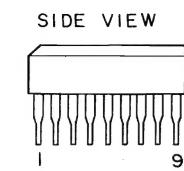
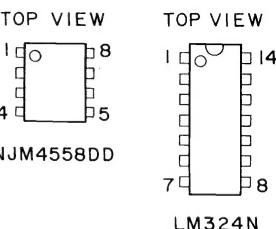
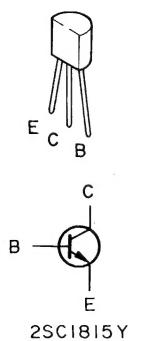
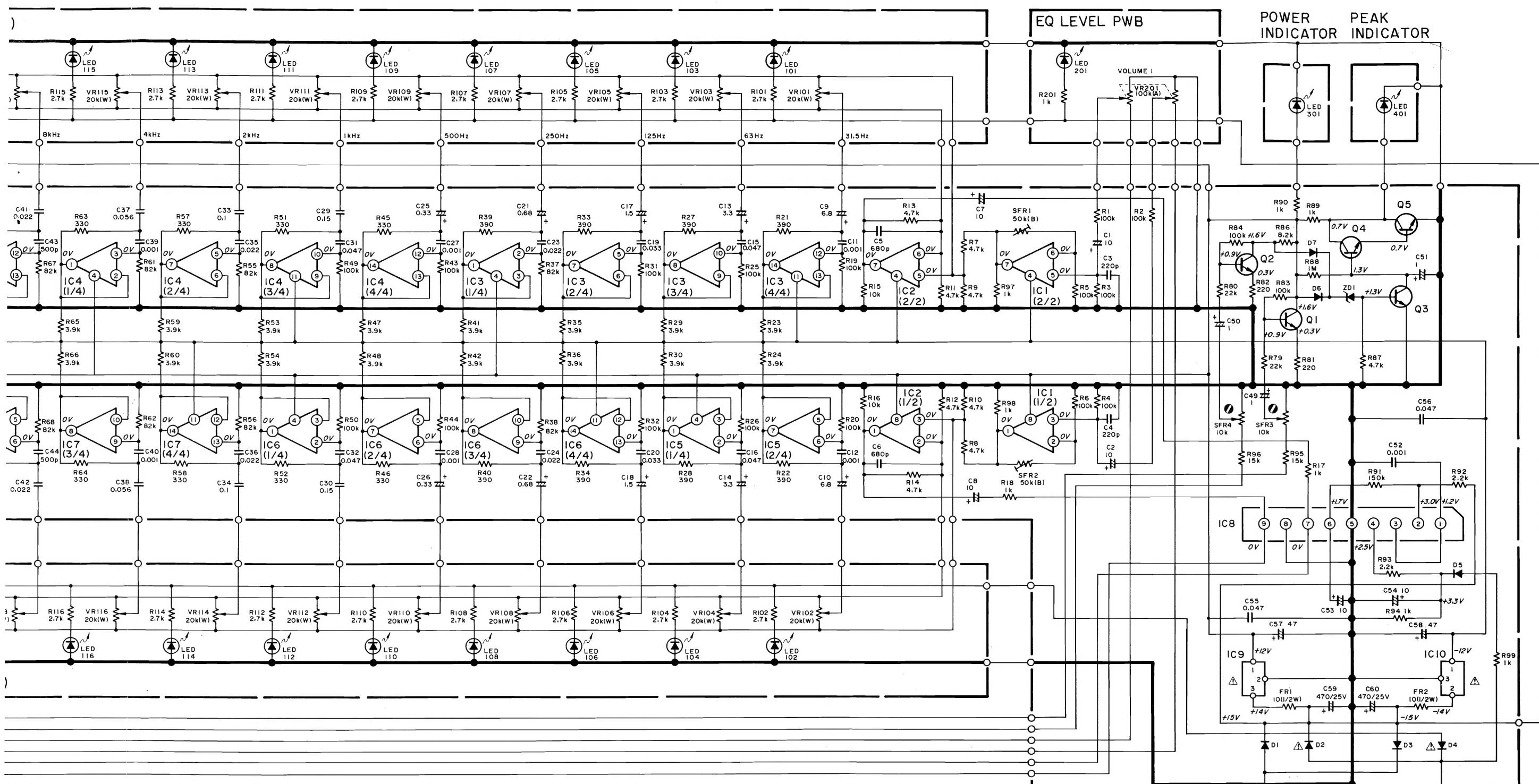


NOTE ON SAFETY:

Symbol Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol .

Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

Components and wiring are subject to change for modification without notice.



"SERVICE INFORMATION IS FOR USE BY QUALIFIED PERSONNEL ONLY –
ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY
REPAIR BY ANY MARANTZ SERVICE CENTER—"



marantz®

MARANTZ is a registered trademark.

MZ 1818